THE CLINIQUE.

VOL. XVIII.] CHICAGO, JULY 15, 1897. [No. 7.

Original Lectures.

THE DIAGNOSIS AND TREATMENT OF GALL STONES.

BY GEO. F. SHEARS, M. D., SENIOR PROFESSOR OF SURGERY IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF CHICAGO.*

PART I.

The importance of the subject selected for me by the chairman of this Section is recognized by all and I can only regret that my time and ability are not commensurate with its demands.

Diagnosis. It will be admitted without question, I believe, that the diagnosis of gall-stones may be beset with many difficulties and that the most careful observer is often at fault. At least I have seen more failures to make a correct diagnosis in affections of the gall bladder than in any other class of troubles, not excepting the inflammatory diseases of the female pelvic organs.

The symptoms upon which a diagnosis of gall-stones is commonly made are: sharp, colicky pains in the region of the gall bladder and stomach, vomiting and derangement of digestion, constipation or diarrhœa with clay-colored stools, increased temperature at the time of the attack, evidence of bile pigment in the urine, enlargement and sensitiveness of the gall bladder, jaundice and itching of

*Presented to the American Institute of Homœopathy, Buffalo, N. Y., June 28, 1897.

the skin, slowness of the pulse, and numberless nervous and emotional disturbances, such as muscular convulsions, fainting, persistent cough or hiccough. When these symptoms are present and an examination of the fæces results in the discovery of gall-stones the diagnosis is complete. Unfortunately, all these symptoms rarely occur in conjunction in the same patient, and unfortunately also, the positive sign, namely, the presence of gall stones in the fæces, is often absent in the irregular or doubtful cases. It may be said, however, that the first duty of the physician when he has reason to suspect cholelithiasis, is to have a careful examination of the fæces made. The physician may think he has done his duty when he directs the patient or the nurse to look at the stools and see if there are any gall-stones in them. This is the usual course and usually the results are negative. The patient takes a look, or the nurse makes a hasty inspection and the examination ends.

The patient should be directed to obtain a fine hair or metal sieve, to put the sieve with the fæces under a tap and let a stream of water fall upon the fæcal matter, aiding the disintegration by breaking up the mass carefully with a smooth stick. Everything that fails to pass through the sieve should be saved for the physician's inspection. Moreover, one such examination is not sufficient. Every stool should be thus examined for one week, commencing with the first one following the attack. It may seem unnecessary to dwell upon this matter and yet it is carefulness in detail that makes the difference between success and failure. My notebook contains the record of many cases in which patients have been sent hundreds of miles for diagnosis, in which this simple procedure, carefully carried out, might have made a positive diagnosis possible at home and thereby saved money to the patient and reputation to the physician.

Gall stones are not always present in the fæces even in undoubted cases of cholelithiasis. The stones either may not have escaped from the biliary passages or if they have, they may have been completely broken up in their passage

through the intestine. This is shown by the experiments of Naunyn who gave to one of his patients on different occasions, from five to seven gall stones. These were swallowed without mastication and yet careful examination of the fæces found only three and these were coated with a fine shell of cholesterin. While then, the finding of stones in the fæces does clinch the diagnosis, the failure to find them does not, as in the case of failure to find a vesical calculus when sounding the bladder, negative the diagnosis.

The subjective symptoms must still be considered and these are of varying value. The first in importance is pain; it may be slight or it may be so severe as to result in fainting, delirium, convulsions or even in death. It may be dull, agonizing, cutting, boring, shooting, colicky or contractile. In severe cases it can be compared to no other pain unless it be that of renal colic or the pains of parturition. The onset may be gradual and it may be preceded by malaise, bitter taste in the mouth and heaviness in the hypochondriac region, or it may come on suddenly while the patient is apparently in the best of health.

In the majority of cases the attack comes on two or three hours after eating, at the time of greatest biliary activity. It may last for several hours or for several days. In the latter case the severe pain is not continuous, there being intervals of relief followed by severe exacerbation. While the pain varies much in intensity and duration in different cases, it is always paroxysmal, and in almost every instance commences in the vicinity of the gall bladder—at least this is true in the early attacks and is, in my judgment, an important feature in the diagnosis. From the gall bladder as a center the pain may radiate to the back, the breast, the iliac region or the spine. Sometimes as the disease progresses the initial pain is so slight and the reflected pains so severe that the patient lays all the stress on the latter and quite forgets the former.

In a case referred to me some time ago the great complaint was of frequent spasms of pain running up and

down the spine, accompanied by severe headaches and producing a condition resembling opisthotonus. In questioning the patient closely concerning the early history of the pain, it developed that at first the pain was always in the region of the gall bladder and that there was always some tenderness at that point, but it was so slight compared with the other pain, that she said little about it. This proved to be the key to the case which was one of cholelithiasis instead of ovarian irritation, as had been frequently diagnosed.

Neuralgia of the stomach, intercostal neuralgia and gastric ulcers are common diagnoses in cases of biliary colic. In the case of one patient who had been treated for six months by three of our best homœopaths, and for varying periods by allopaths of excellent reputation, for neuralgia of the stomach, an inspection of the stools after the attack found the gall stones, and treatment on this basis cured the case.

It may be noted that in gastric ulcer the pain comes on immediately after the ingestion of food, while that of biliary colic comes irregularly, or some two or three hours after eating. In one case diagnosed as biliary colic, and which certainly had many of the symptoms of the passage of gall stones, suspicion was aroused by the regularity of the periods.

It was decided therefore to wash out the stomach before the expected attack. This proved to be the remedy, for the removal of a thick, green accumulation from the stomach, immediately stopped all pain and ultimately cured the patient.

It may be of interest to note that small gall stones often cause more pain than large ones. In one of the most severe cases I ever saw, so far as pain was concerned, the whole trouble arose from the passage of small grains of cholesterin.

Large smooth stones may so stretch the biliary ducts as almost to paralyze the nerves and render the reflex pains impossible; while small stones or sharp crystals

of cholesterin may induce reflex pains of a severe character, just as a small fissure of the rectum will cause severe reflex pains while an extensive tear may be almost painless.

The character of the pain may afford some indication as to the location of the stones. Thus paroxysmal attacks of pain followed by complete intermission, indicate the passage of a stone through the cystic duct; frequently recurring spasms in cases where no stone is found in the fæces, and in which there is no distention of the gall bladder or jaundice, indicate gall stones in a shrunken bladder or in the cystic duct; while persistent pain with more or less jaundice indicates the presence of a calculus lodged in the common duct. When the pain is associated with distention of the gall bladder but no jaundice is present the stone or stones will be found blocking the cystic duct.

Enlargement of the gall bladder when present is, next to pain, the most important diagnostic symptom. Inasmuch as in a large number of cases of cholelithiasis there is no permanent obstruction to the exit of the bile and in other cases the enlargement of the lower lobe of the liver covers the gall bladder completely, and in still others the abdominal walls are so loaded with fat that any examination is a matter of difficulty, this symptom can be detected only in a minority of cases. When present the tumor has a more or less regularly pyriform shape, and is usually found depressed from the region where it normally belongs, namely, about the prominence of the tenth rib, downward and inward toward the umbilicus. Various conditions may change both its form and its location, as for instance, it may be crowded by a dilated stomach into the right flank and be mistaken for a floating kidney. The ease with which it may be pushed backward under the liver and apparently into the position of the kidney, favors this deception. The distention may be so great as to simulate a hydronephrosis, an ovarian tumor or an appendicular abscess. A remarkable case was reported by my friend,

Dr. Bishop, in which the tumor not only pressed downward into the right flank, but filled almost the entire right side of the abdomen. This being mistaken for a hydronephrosis, an incision was made in the lumbar region for its relief, when the true character of the trouble was discovered. I afterward verified this case by an abdominal incision. I have seen several cases in which only the closest scrutiny could make a diagnosis between an enlarged, inflamed gall bladder and an abscess following appendicitis. The swelling may also appear and disappear during the passage of calculi. I have such a case now under observation and treatment.

In differentiating between a floating kidney and a distended gall bladder the history of the case is most important. In the former there is a previous history of urinary trouble, in the latter, of biliousness. In the former when the patient is in the supine position there is a tendency for the tumor to drop back into the flank; in the latter, to come forward. In the former the tumor does not vary in size unless there is hydronephrosis; in the latter it often varies in size and often disappears. In the former the tumor is not sensitive to the touch; in the latter it is often extremely tender. The former is kidney shaped, the latter pyriform. In an appendicular abscess there is an early history of pain in the region of McBurney's point. There is often pain on urinating and some impairment of motion in the leg of the affected side.

Jaundice is an accompaniment of so many abdominal troubles that it is not diagnostic of gall stones except when it persistently follows the attack of pain. Taken in connection with pain, enlargement of the gall bladder, itching, constipation and clay-colored stools and the presence of bile in the urine it is confirmatory, but it must not be forgotten that inflammatory swelling of the mucous membrane of the biliary passages may obstruct the biliary ducts and even obliterate their lumen, producing all these symptoms without resulting in the formation of gall stone. A case of this kind was operated upon by myself

in the presence of Dr. J. M. Lee, some two years ago, in which the ducts were found to be impervious although no calculus occupied their lumen. Reidel claims to have had eleven cases due to inflammatory swellings of the mucous membrane of the wall of the duct which led to obliteration of the lumen with accompanying colicky pains. In examining for jaundice it must be remembered that in slight cases the discoloration may be discovered upon the conjunctiva, under the tongue, in the palm of the hand, or alongside the alæ nasi, when not noticeable in other localities.

While slight enlargement of the liver is a frequent accompaniment of gall stones it is not often so pronounced as to be a prominent diagnostic symptom except in those cases in which the attacks are of long duration, or in which the obstruction is permanent. Occasionally, however, it develops with considerable rapidity. Thus, in a case brought to me for diagnosis, the liver covered the region of the stomach as a pronounced tumor and on account of its rapidity of growth it had been supposed for some six months to be malignant. My diagnosis of gall stones was made on the early history of the case and was verified by subsequent operation. In another case in which the patient had suffered from gall stones and had undergone an operation for their removal, upon closure of the fistula enlargement of the liver took place so rapidly that I believed an abscess to be present. Exploratory incision revealed, however, that the enlargement of the liver was not due to an abscess but to obstruction of the common duct from inflammatory swelling.

In considering the diagnosis of gall stones I have referred incidentally to some morbid conditions that may simulate this disease. One of these, namely, malignant growths, demands a more extended notice. Both conditions may be accompanied by pain, jaundice, pale colored stools, enlargement of the liver and constipation, and the other evidences of obstruction to the escape of bile. In the latter stages of malignant disease the symptoms are

almost identical, but in the early history of the trouble there is a more marked difference. Gall stones have a history of repeated attacks of colic, paroxysmal in duration, with jaundice, but the jaundice improves or disappears entirely for a time. The attacks of pain are very severe at first and are accompanied by a rise of temperature, but although the liver is enlarged it is not nodular. In malignant disease the pain is not so severe at first but gradually increases in intensity and is persistent. The jaundice comes on gradually and never passes away. The liver is often nodular to the feel and the patient's general health fails rapidly.

Robson says that in all malignant diseases of the biliary passages associated with jaundice there is sufficient distention of the gall bladder to form a perceptible tumor. It must be borne in mind that cancer of the biliary passages may be present at the same time. Some discussion has arisen as to which, in such a case, is the cause and which is the result. While I am not prepared to say that gall stones are always the primary trouble, my experience and observation lead me to believe that in those cases where the malignant growth has originated in the gall ducts and is not simply an extension from the liver, the cholelithiasis is the cause and not the result.

THE PATHOLOGY AND TREATMENT OF TWO FORMS OF ACUTE BRIGHT'S DISEASE.

By E. M. BRUCE, M. D., PROF. OF CHEMISTRY, AND ASSOCIATE PROF. OF THEORY AND PRACTICE IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL, CHICAGO.

Some one has said that every woman at some time or other is afraid she has a cancer, and that there comes a time in every man's life that he knows he has some form of renal disease. It has also been said that skin diseases are divided into two classes, those which are eczema and those which are not. Renal diseases are not quite so fortunate for they are apt to be indiscriminately termed Bright's. Whether any of these things be strictly true or not, I want in this short lecture to make a plea for a more careful diagnosis in renal troubles, in order that we may more intelligently treat them. I do not pretend that I have anything particularly new or original to present, but simply ask your attention to the consideration of the pathology and treatment of two forms, parenchymatous metamorphosis and true nephritis.

The amount of water discharged by the kidney is under the control of the vaso-motor system, and concerns almost entirely the glomeruli; the function of the epithelial cell lining of the uriniferous tubules is altogether another story. And at the risk of boring you somewhat I would like to call your attention to the results of the experiments of Heidenhain and Nussbaum.

The former injected into the blood of some of the lower animals indigo-carmine, and after waiting a certain length of time the animals were killed and the kidneys carefully examined. It was through the rods of Heidenhain that the indigo-carmine was found entering the epithelium, and passing through this into the uriniferous tubules. A second set of experiments was then tried. The indigo-carmine was injected as before, then time enough allowed for it to be completely thrown off (this was of course determined from the first experiments) and a second injection made. The second injection was but incompletely eliminated. It would seem that the cells were weakened by the extra work imposed upon them by the first installment. and that they were not equal to the task of getting rid of the second. The results also go to prove that effete matter is eliminated by the epithelium of the

tubules. It is proven only of course in regard to indigo-carmine, as it is not possible in physiological chemistry to adapt the phrase of the geometrician: "Let this be any effete matter."

Nussbaum carried this form of experimentation still further, and happily the newt furnished him a most desirable subject. This animal has a double blood supply, or rather I should say that the kidney has a double supply. The glomeruli have in the newt an arterial blood supply, and the uriniferous tubules are venous ones. These are not connected, the arterial one coming from the renal artery and the venous from the femoral veins, really a bifurcation of the veins. It is clear, I take it, that if one supply is shut off the work of the other may be determined. The quantities of certain food products were increased and some abnormal ones added, this mixture was injected into the systemic circulation. The result was that peptones, sugar, albumin and water were found in the bladder before the renal artery was tied; after ligation they disappeared, urea however continued to appear. Now the renal artery being tied indigo-carmine was injected into the circulation, no urine was found in the bladder, but the coloring matter could be traced through the epithelium into the tubules. It is noteworthy that the epithelial cells seem to have excreted some water; this was probably an effort of nature to render the excretion of urea easier by dissolving it, and under the excitement of an unusual quantity of foreign matter the flow of water increased.

These experiments do not *prove* anything beyond the facts stated, but to me it is proven that in all human analogy and probability that the glomeruli supply the watery element and inorganic salts of the urine, and that it is upon the epithelial cell lining of the tubules that the task falls of removing the results of tissue changes (metamorphosis.) Whether urea is an oxidation product of uric acid or what not is not within the limits of this paper. So much for the chemico-physiology of the kidney's work. Now then suppose we have existing in the system some such disease as scarlet fever, pneumonia or diphtheria; these epithelial cells take upon themselves the task of freeing the kidney and then the system of an excessive amount of incompletely formed products of tissue waste, or perhaps the extraneous poison of the disease. What is the result? The epithelial protoplasm loses its power of elimination the same as with the indigo-carmine. As the trouble

progresses we find a cloudy swelling of the epithelial cells, the protoplasm has become turbid, then a fine granular metamorphosis consisting of fine granular particles and fat globules; this is followed by coarse granular deposit and larger fat globules; finally the protoplasm is destroyed and is replaced by fat, then the function is at an end. Meanwhile the urine is diminished in quantity with a specific gravity varying from 1.020 to 1.030 (if, however, by any chance the watery element remains about normal the specific gravity is apt to be below 1.015) the color is high, reaction acid. The albumin varies all the way from 15 grains per litre to completely solidifying on boiling. On microscopical examination we find small, hyaline, epithelial fine granular casts, fine granular débris; later, coarse granular casts and fat globules. Blood and blood casts are not present. This condition is acute parenchymatous metamorphosis.

In acute diffuse nephritis the kidney is usually much enlarged, the capsule now adherent. The stellar veins distended; the cortex of the kidney and Malpighian pyramids congested and sometimes ecchymotic. Later on the cortex becomes pale and contrasts strongly with the dark pyramids. The condition of the epithelial cells is very much the same as in acute parenchymatous metamorphosis, but it has in addition the new elements from the blood, the result of inflammation. The cells covering the Malpighian tuft and the lining of Bowman's capsule are increased. In severe cases this causes a pressure on the blood vessels within the capsule, and small amounts of blood are sometimes found within the glomeruli. Considerable numbers of leucocytes are found throughout the section but not in sufficient number to stimulate suppuration. The urine is diminished in quantity, color apt to be smoky or bloody. The specific gravity not so high as in acute parenchymatous metamorphosis. Hyaline, epithelial and granular casts are present; but blood and blood casts are the diagnostic features. The retinal changes do not occur in the acute stage. There may be some disturbance of the sight at this time, but is most apt to be due to impaired nutrition of the optic centres.

One of these troubles is due to inflammation and the other to a metamorphosis which is not inflammatory. One involves the whole structure of the kidney and the other only the epithelial cells.

Acute parenchymatous metamorphosis is most apt to

be an accompaniment of infectious disease, while the acute diffuse nephritis is much more apt to be a sequel or idiopathic. Of the two the parenchymatous metamorphosis is the more discouraging.

In the treatment of these conditions we should keep in mind the cause and the pathology. In the acute parenchymatous change remember the effort that is being made by the kidney, i. e., the epithelial cells of tubules to throw off the effete matter. It is most desirable to prevent the skin from becoming chilled, and cold baths or anything approaching cold must be avoided. In cases of children who are more or less restless it is a most excellent thing to have them wear a woolen suit in bed. Probably a Jaeger flannel is the best. The skin should not be allowed to become dry however. Frequent sponging of the body with tepid water to which a little alcohol and ammonia has been added, is most grateful. Care should be taken that the skin is not left wet. Dr. Porter insists that the skin should be rubbed dry by the hand of the nurse, and it is to my mind a most excellent method.

It will often be a nice question to decide whether diaphoresis by the use of jaborandi or by hot air baths is the better, or whether the patient is much benefited by either. If the patient does not seem to be weakened by the hot air baths I prefer it to the jaborandi or its alkaloid pilocarpine. I have used successfully a very simple means for producing a free sweat. Cover half the bed with rubber sheet and it with a warm white sheet. Place the patient upon it and cover thoroughly with blankets. Then place around him as many as are necessary of ears of Indian corn that have been boiled say for half or three quarters of an hour. Each ear is loosely wrapped in a towel or clean cloth as it is taken from the kettle, and placed around the patient. The corn will keep hot for a long time and a most satisfactory sweating is induced. When the bath has been kept up the desired length of time, the patient is quickly rolled into a warm blanket on the other half of the bed. The wet things can all be quickly removed by pulling off the rubber sheet. The patient is then rubbed dry with a warm towel and the hand.

In every case where the disease will allow the bowels must be moved daily with enemata. The food will have to be regulated according to the case. Usually broths, milk, rice, potatoes and plenty of distilled water. I much prefer distilled water and pure spring water to any of the

mineral waters in this condition. If mineral waters are used they should be those comparatively free from potash salts. Keep a warm even temperature in the room, with thorough ventilation. The remedy or remedies employed will have to a great extent to be governed by the condition of the primary disease. I am convinced that an occasional dose of mercuric biniodide will do much to prevent parenchymatous metamorphosis in scarlet fever. The remedies I use most are, when there is comparative freedom from cerebral symptoms, mercurius corrosivus, arsenicum, nitro-muriatic acid, phosphorus. In cases of mental disturbance belladonna and hellebore. In fact I should use any remedy that there were good indications for employing.

In idiopathic acute nephritis such as bakers, iron-workers and bridge-builders are apt to have, I favor rest in bed in even mild cases, warmth and a non-nitrogenous diet. Milk I prefer to anything else. The hygienic treatment is about the same as in the parenchymatous degeneration. If there is much pain in the back an application of crushed horseradish tops will often give great relief. These, however, are not always obtainable. If the urine is bloody and passed with much pain terebinth and helonias have been my best aids. Mercurius corrosivus is as a general thing the main remedy in the first of the attack, then arsenicum, rhus tox. berberis vulgaris and apis mel. are often indicated and very useful.

In using pilocarpine hypodermatically it is well to give some cardiac stimulant first.

I do not pretend, ladies and gentlemen, that I have given all of the points in the pathology or treatment in these ailments, but I want to urge upon you the careful use of your test tubes and microscopes, that you may be sure of the condition of your patients and just what form of disease you are battling.

Clinical Society Transactions.

CORNELIA S. STETTLER, M. D., Corresponding Secretary.
ORRIN L. SMITH, M. D., Recording Secretary.

JUNE MEETING, 1897.

The regular monthly meeting having been adjourned for one week because of the American Institute, its session was held on Saturday, July 3, at 8 P. M. The first order of business was the reading of

THE PRESIDENT'S INAUGURAL ADDRESS.

By A. K. CRAWFORD, M. D.

ON COLOR IN DRESS.

Ladies and Gentlemen:—The original purpose for which man clothed himself seems to have been ornamentation, not warmth or decency. In support of this view is the fact that among savage tribes we have seen that tattooing and painting of the skin has preceded the adoption of garments, and the garment first chosen is frequently a string of beads. In support of this view, too, may be cited the pervading thoughts in the minds of the most enlightened and educated members of civilized society to-day, which is not the question of how serviceable or healthful a suit or dress is, but how does it look, is it becoming to the figure and complexion of the wearer, and how expensive is it?

Therefore, in the evolution of clothing the body the civilized races have not advanced far beyond the savage in what should be the greatest purpose of dress, viz., hygiene.

It has been written that "the first spiritual want of a barbarous man is decoration," and it appears equally true that the last spiritual want of the civilized descendant of a barbarous man is decoration.

Modesty is a commodity which came into vogue some time after the epoch of the beads. It is the direct outcome

of the habitual use of clothing. And as the impulse which brought this to pass was the desire for decoration, modesty is the daughter of vanity. In this particular of vanity preceding modesty, the Garden of Eden story differs from all the other Adams and Eves with whom we have made acquaintance. Modesty was at once a full grown attribute in the progenitors of the race, but we find it conspicuous by its absence in their insular tribal descendants.

Dress has scientifically a twofold object to fulfill, hygienic and æsthetic. It should furnish protection and maintain a proper and equable temperature of the body, and it should serve as a vehicle for personal adornment. While the former elements, those for the maintenance of health, are far from being perfect in the garbs of the day, it is sad to think that the hygienists have crusaded chiefly against the decorative element of dress. The dress reformers would annihilate fashion if they could, and reduce habiliments to a most dreary monotonous plane. They are not in any great danger of succeeding until they can instill into our minds that it is not necessary to rob dress of its most valued attractions to comply with rigid laws of health.

There is no doubt that an idea prevails to the effect that a healthy costume is necessarily ugly, that to follow in dress the dictates of health is to follow in fashion the dictates of a frump. An apostle of clothes will appear before us some bright morning, and do for us in this matter what the builders during the renaissance did for architecture. We have already had a "philosophy of clothes," from the pen of the sage of Chelsia. We want next the philosopher who can wield the scissors equally as cutting as the other did the pen, and bring together by deft stitching hard scientific hygiene and æsthetic ornamentation. In other words, compound into one costume both healthfulness and attractiveness. Both are real necessities to our well being and peace of mind, and you

know how necessary the latter is for the perfect digestion of your dinner.

Probably no single element in the choice of clothing is so carefully scanned as color. In fact almost all of the other elements which enter into the hygiene of a garb are very largely ignored. Even the warmth of a fabric is imperfectly understood, while as to its hygroscopic properties, porosity, impermeability to water, inflammability, power of absorbing odors, electrical qualities and poisonous dyes! Really, it is asking too much of the buyer or seller to heed such trifles. Nor is the influence of color upon the health of the individual given any greater consideration. That black is hot and white is cool is sufficient hygienic knowledge for most people. But regarding the adaptability of color to complexion and of combinations of colors to figures the storehouse of knowledge is such, that if bound in covers, it would dwarf "the thoughts of Marcus Aurelius."

One of Carlyle's paragraphs on clothes reads:

"What meaning lies in color? From the soberest drab to the high flaming scarlet, spiritual idiosyncrasies unfold themselves in choice of color. If the cut betoken intellect and talent, so does the color betoken temper and heart. In all which, among nations as among individuals, there is an incessant, indubitable, though infinitely complex working of cause and effect; every snip of the scissors has been regulated and prescribed by ever active influence, which doubtless to intelligences of a superior order are neither invisible nor illegible."

A carefully conducted experiment to determine the absorbability of the sun's heat by the same material dyed in different colors in the same time, resulted as follows:

White registered 100° F.; pale straw, 102° F.; dark yellow, 140° F.; light green, 155° F.; turkey red 165° F.; dark green, 168° F.; light blue, 198° F.; black, 208° F.

There is but little choice between dark blue and black, both absorb heat tremendously, and the dividing line marking warm from cool fabrics might be placed between pale green and red.

There are but three solar colors, blue, yellow and red. Their influence upon plant life is fairly well determined. Blue takes the active part in germination while the seed is yet in the soil, or even above ground. Yellow is the active element in the formation of chlorophyll and the deposition of carbon, consequently it increases the bulk and strength of a plant. Red rays induce fructification.

That these separate color rays affect animal life as well as vegetable is a matter of universal agreement. Any difference of opinion arising from the extent to which they may act not the fact itself.

Carbonic acid gas increases in proportion to the intensity of the light to which the body is subjected. By calculation from one-twelfth to one-fourth more carbonic gas is exhaled when breathing under the influence of light than in darkness. Here is a physical reason for the cantankerous mental condition into which arctic explorers degenerate after living months in obscurity.

The action of blue light upon the germination of plant seeds has been seen to possess equal power over the incubation of the eggs of the house fly. Those placed under the blue and violet rays soon showed more development than those under white, red, yellow or green screens.

A scientific commission for the investigation of the problem of the effect of light upon life summed up their work with the statement:

"Whatever vital action results in the formation of carbonic acid gas seems to be augmented by the blue and violet rays of the spectrum, and whatever vital action results in the decomposition of carbonic acid gas and fixation of carbon is augmented by the luminous and calorific rays exclusively."

Color in dress should be considered both in sickness and in health, in its applicability to cerebral as well as to sympathetic states of the organism; and when disease is not present the temperament should receive its carefully affiliated color.

When called upon to prescribe for grief it is of just as great importance to order a change of attire from the black of occidental mourning to the red of oriental mourn-

ing, as it is to give a dose of ignatia. Ethically considered the black is most consistent with the state of grief, but if we are called upon to assuage the suffering, something more can be accomplished by ordering its removal. Ignatia stimulates the sympathetic ganglia, and a flaring red will equally stimulate the cerebral.

Dr. Wilks evidently believed that the nature of man is "Like the dyer's hand subued to what it works in," for he used to point out that the temperament of a man was written in his clothes. When a man of sanguine habit, in midddle life, approached him flaunting a white waistcoat and a bright tie, he knew he had a case of gout to treat, and he declared that the bilious-arthritic patient always wore a dark or black suit, with a large black tie, that he showed active energy, was unsocial and never joined the free masons. In describing these temperaments in the body politic, a clever Frenchman said that the bilious are demagogues, the sanguine are democrats, and the nervous are aristocrats. Much of this settled state of man might be changed if each would forsooth don the color that contrasts with his temperament instead of accentuating and perpetuating his peculiarities by wearing habiliments of his own hue. If the breezy, gouty subject would robe himself in violet his demeanor and desires would likewise become subdued, and the bilious man should never be allowed, under penalty of imprisonment, to wear anything dingy or dark. He needs quantities of white light with a dash of red in it at the throat or waist.

Violet possesses some electro-chemical power, but its influence upon the mentality is melancholic and depressing. Red carries the calorific rays and cures tactiturnity, suggests cheerfulness and improves the appetite. Blue is devoid of both the red and violet attributes, but has peculiar qualities of its own. The red and violet are opposites in their effects upon the central nervous sphere. If red and violet may be classed as cerebral colors, blue takes its place as the grand color for the sympathetic. Blue is the color in which to clad a precocious child of a tuberculous

diathesis. Blue develops both animal and vegetable life, and it has shown its power of control over both hysteria and mania. The craze for blue glass has long since gone by, but the craze left a small residue of knowledge and good behind it. Very small compared with the expectations and claims of the crazy disciples of blue glass, yet fully as large as the residue we now hold to be good from the lunacy over Koch's lymph.

The idea of using color in the treatment of disease dates back beyond the memory of even the oldest member of this society. History tells us of a king, who lived centuries ago, being treated for scarlet fever by being placed in a room draped in red, into which only red rays were permitted to enter, and for whom only red wine was prescribed as his diet.

I advocate rather the treatment of health than the treatment of disease by a more careful choice of color in dress. We all have disease tendencies, hereditary or acquired, and might successfully divert them by the selection of the colors in which we are clad. The pessimist in disposition should never wear blue, nor the optimist red, but just the reverse. The neurotic wants to beware of the violet, but will do well in light blue-grays. The plethoric requires the nonluminous colors, just as the anæmic girl must be surrounded by yellow, and the hysterical by blue.

I am not urging this matter upon the attention of the Clinical Society as a new theory in medical practice, nor as a new practice with which to displace well established theory, but merely as an adjuvant which has received neither the hygienic nor æsthetic consideration at our hands which it deserves.

REPORT OF THE SECTION ON MATERIA MEDICA AND THERAPEUTICS.

J. E. GILMAN, M. D., CHAIRMAN.

XXXV. THE ROENTGEN RAY IN ITS THERAPEUTICAL APPLICATION. BY DR. J. E. GILMAN.—While the scientists of Europe were experimenting with guinea pigs and other animals with the idea of utilizing the X-ray as a possible therapeutic agent, here in Chicago we were so much in advance that we were not only past the stage of uncertainty as to its bactericidal influence, but were practically applying it to the living subject with satisfactory results; and the European experimenters are coming slowly but surely to the conclusions that are now to us as old as the last year's newspapers. I have watched the progress of these investigations with much interest; and wish to report one case out of the number as illustrating the action of the force known as the Roentgen ray, and some deductions drawn from the observation and results obtained. This was a case of phthisis pulmonalis; a case seen by a number of specialists of pulmonary disorders, a case tested through every channel of scientific diagnosis, a case of so hopeless a condition that its recovery reads almost like a miracle. It was the general consensus of opinion of the experts who examined this patient that from three to six weeks was the limit of life that could be expected. The only bad symptom that was not present was the dropsical stasis of the extremities, and I know of nothing but this treatment that would have wrested such a case from an inevitable death. The following report of the case was kindly filled out for me by the attending physician; and I can vouch for its correctness, as I watched the case throughout the period covered by it.

Case. Andrew Gorgon was born near Naples, Italy, in 1875. His parents were vineyardists; both are living and healthy, also a brother of seventeen, who is a strong healthy boy. In 1886 the family emigrated to America, and settled in Ohio. Near their home was a large creek

of very cold water and Andrew often stole away to bathe there with other boys, remaining in wet clothes often for hours. He caught cold after cold and at last a nagging cough set in of which he could not get rid. Suddenly hæmorrhage set in, and for the first time his parents took alarm. Physicians were summoned, but he never got anything more than temporary relief. Hæmorrhages again and again recurred, growth ceased at this point, appetite irregular and capricious, sleep restless and unrefreshing, fever constant and drenching night sweats. The parents now determined to move to Chicago, desiring to consult a wider range of medical skill than the Ohio town afforded. They arrived in the autumn of 1895. He at once began attendance at the clinics of the medical colleges in rotation; as he found no improvement in one he tried another. At last his case was pronounced hopeless, by several specialists and his father directed to use anything to make him comfortable, but treatment was useless and so he was given up to die. Early in 1896 the X-ray was a topic of anxious investigation to us, as to whether it had therapeutic value or not. Drs. Pratt and Wightman placed tube cultures of the bacillus tuberculosis under the ray and found no farther propagation occurred after an exposure of two hours. This test was made time after time with different cultures, always with the same results. This discovery was given to the world, and it naturally created much adverse criticism, and even ridicule, by all classes of the profession. To the initiated, thoughtful and those who really desired to see the demonstration of the truth every facility was given to verify the statements made. After all doubt was removed as to the cultures the conservative criticism was advanced that although tube cultures were unable to stand the X-ray, it might not be the same with human lung tissue in the living organism.

It was thus that this unquestioned case was submitted for experiment. Before placing him under the ray his height was four feet eleven and three-quarter inches, weight seventy-four pounds. The right lung from apex to mammary region was said to be one big abscess, discharging pus in quantity. Appetite gone, digestion disabled, sleep restless and unrefreshing until nearly morning, fever constant, rising to 104 degrees. Hæmorrhages recurring every four to six weeks, amount varying from a few mouthfuls to a breakfast cup full at each discharge. Of the leading specialists who passed upon him the most hopeful

placed his longest possible limit of life not over five weeks at the utmost.

His first treatment began May 20, 1896, at 1:15 P. M. Before treatment his temperature, pulse and respiration were taken. Temperature 104.5°; pulse 100; respiration 34. Beginning second hour, temperature 102°; pulse 120; respiration 28. End second hour, temperature 101.75 ; pulse 120; respiration 22. Half an hour after the treatment ended, temperature 101°; pulse 100; respiration 20. At the end of the first hour Andrew was sleeping soundly.

May 23. Temperature 99.5°; pulse 112; respiration 36. Second hour, temperature 100.20°; pulse 112; respiration 30. Third hour, temperature 99.8°; pulse 98; respiration 36.

Pt. reports night sweats much lessened; no return of hæmorrhage, which was threatening at last treatment. Feels stronger and appetite improved.

May 26, 1:30 P. M. Temperature 99.3°; pulse 110; respiration 28. Second hour, temperature 100°; pulse 120; respiration 27. Third hour, temperature 100°; pulse 120; respiration 30. May 28, 1:30 P. M. Temperature 98.2°; pulse 90; respiration 18. Second hour, temperature 98.5°; pulse 96; respiration 18. Third hour, temperature 100°; pulse 96; respiration 18.

Cough much lessened in frequency; yesterday only two paroxysms during the day.

Bowels regular, appetite voracious, sleep restful and dreamless; awoke only twice to cough and immediately slept again. Sweating much less, but still overnormal in amount.

June 9, 1:30 P. M. Yesterday felt so well that he attended an Italian wedding in his church. Attended the supper at night, overate and was taken to a drug store to be treated for colic.

Has gained one pound in body weight. Reports almost no cough during the day, but several times during the night. Pt. in fine spirits, begins to walk about freely. Urine excessive in quantity, has been so since the first.

Temperature 98.5°; pulse 100; respiration 20. Temperature 98.5° pulse 100; respiration 28. Temperature 98.5°; pulse 86; respiration 18.

The variability in pulse, respiration and temperature is due and dependent upon the distance or nearness of the tube to the chest wall. The closer the tube, the stronger the force, and hence the more powerful the electro-therapeutic action. A rise therefore of pulse and respiration

always occurs under treatment, but this declines abruptly about an hour later.

June 13. He has gained another pound in body weight. Microscopic examination of the sputa shows marked decrease of the bacilli in the sputum. Urinalysis showed, although the urine is in excess, the proportion of the solids to quantity was unchanged. He to-day walked two miles without fatigue. Appetite still in excess, digestion good; present weight seventy-eight pounds.

June 30. Yesterday he attended an Italian picnic in Lincoln Park; sat on the wet grass for several hours, caught cold and all his symptoms showed acute nephritis. Now says he had acute inflammation of the kidney four years ago, and for a time this was a very terrible complication.

August 6, 11:45 A. M. Temperature 99°; pulse 92; respiration 14. Second hour, temperature 99.5°; pulse 84; respiration 16. Third hour, temperature 100°; pulse 92; respiration 18.

Says he feels good, appetite and digestion very good. Cough almost gone except in the morning a little. Urine shows specific gravity 1,014, reaction neutral. Sediment normal, no sugar, no blood, no albumin.

Sept. 3, 1:30 P. M. Yesterday wrestled to try his strength, then ran to a street corner and jumped on a street car in motion and got a sudden wrench, began to cough and brought up a small quantity of blood. Greatly frightened, but to-day no rise of temperature, pulse or respiration. On examination found the blood came from the back of the throat. Complains of the throat being sore on swallowing; says he has eaten two pecks of peaches and one large watermelon without assistance in two days. Complains of pain over the kidneys recurring at intervals. Small calculi voided with much pain. Microscopic examination of sputa shows only very few bacilli, in all not more than four in six slides.

June 23, 1897. Andrew Gorgan is in fair health. No fever or night sweats. Good appetite, sound sleep, and can walk for miles without great fatigue. From the day he took his first treatment he has never had the slightest hæmorrhage from the lung; can take a deep breath without coughing. He is now simply weak and requires country air and a change from his very unsanitary surroundings.

This was an apparently hopeless case. At this writing there is no more of the phthisis present; the boy is build-

ing up in physique and bids fair to regain the lost years of growth. From this with other cases noted under the treatment of Prof. Pratt I deduct the following ideas :

The X-ray is an electrical phenomenon and differs from other electrical phenomena in potential only. The galvanic, the static, the magnetic as well as the X-ray as far as principle goes, being one and the same thing.

The ordinary cell battery has a potential of from one to two volts; by adding a large number of cells with resistance, the potential may be increased to equal the potential of the static, magnetic or X-ray.

The potential of the static machine varies from 25,000 to 500,000 volts.

The potential of the X-ray, and of the magnet, also varies from 100,000 to 1,500,000 volts.

The Crooke's tube when excited forms a magnet field, the lines of force are projected from the tube in the same manner, as from a magnet.

If we apply the galvanic battery to the body the current, owing to the low potential, commences to be diffused just after leaving the electrode. With the static, owing to increased potential, the lines of force are concentrated to the distance of an inch or more, before diffusion takes place, while the X-ray and magnetic current passes through and beyond the body before diffusion takes place just as a stream of water projected from the nozzle of a pipe may pass for a considerable distance in a solid stream before it breaks into a diffused shower of spray, the distance being determined by the force with which it is impelled. With a slight force the diffusion takes place in a short distance; with the X-ray apparatus the force is projected in distance from twenty-five to two hundred feet before diffusion takes place, making a most powerful bombardment of electrical force. Just as the hydraulic water pipe of the California mines forces an almost irresistible column of water through its exit. As the Crooke's tube discharges its discharge in one direction, the outside becomes electro-positive, the inside electro negative with every discharge

of the tube which means cutting the lines of force. All substances liable to decomposition are decomposed in the direction of the lines of force, liberating the oxygen as well as other gases; said oxygen forming ozone, thus giving us an acid base; ozone being the most powerful germicide known. From the experiments made we prove that:

1. Electricity is a germicide.
2. Electricity will hasten physiological changes.
3. There is an increase of temperature, due to the hastened physiological change.
4. It increases the elimination of effete substance, as demonstrated by analysis of the urine as well as odor from breath showing chemical change.
5. It stimulates the heart's action.
6. It acts as a sedative.
7. It has a profound effect on the nervous system.
8. It equalizes the circulation.

I have witnessed many of the applications of the X-ray upon my patients, and so far have not seen any of the injurious effects reported in cases elsewhere. There is no doubt that injuries have been received in many cases where this powerful agent has been ignorantly or injudiciously handled, but such is the case with many other agents which are invaluable when rightly applied. Opium will kill, arsenic is destructive to human life; but both are important agents in combatting disease conditions when handled by those understanding the danger limitation and the therapeutic use. In this connection I wish to quote Dr. Harry P. Pratt's statement.

Dr. H. P. Pratt, Professor of Electro-Therapeutics in the Bennett Medical College, makes the following statement in defense of the recent allegations against the Roentgen X-ray as a healing medium:

"Recently much has been published about the injurious effects of the X-ray upon the human body, such as its producing abscesses, burning and blistering of the skin, shedding the hair and finger nails, etc., etc. For the last eight months I have had patients under the X-ray in my laboratory from 9 A. M. to 6 P. M., duration of treatment varying from a half hour to four hours at each sitting, and not once with any bad result in any case.

"After the Crookes' tube is excited by the coil, the magnetic lines of force are projected down in the same manner as they pass off from a magnet, and traversing the intervening space, pass through the body down to the floor, and back to the coil, and the tube again, completing the circuit.

"The X-ray is electrostatic in character, and of a very high potential. With every discharge from the Crookes' tube oxygen is liberated in the body as well as the surrounding atmosphere, which, combining with nascent oxygen, forms ozone.

"It is due to the electrolysis produced in the body that we are able to destroy the bacilli in contagious disease; ozone being the most powerful germicide known.

"The ozone generated between the tube and the body does not produce the burning, etc., noted; it is the increased current which, passing through the body, produces electrolysis, the skin being of a higher resistance than the rest of the tissues.

"This same condition of burning takes place under the galvanic and static currents if excessive use be made of them. Except for potential alone, the two forces are identical.

"In some of the eastern States criminals are electrocuted. Here electrolysis is carried to an extreme, destroying the whole body, but the product of partial destruction exhibits abscesses, etc.

"In the disastrous treatment given and reported, the unskilled operators used a current in the apparatus of too high tension, and instead of hastening normal physiological change, carried their treatment to a point of electrocution. Strychnine is a good drug when used by a skillful physician, but a danger in the hands of a tyro.

"It must not be forgotten that electric phenomena are very powerful, and not every man who can buy a machine is capable of applying it. The electric machine must be as skillfully adjusted to each individual as the microscope to a specimen submitted to it. It is a treatment full of danger if ignorantly or rashly handled, but beyond price in value to the skilled and careful electro-therapeutist."

In surgery the Roetgen ray will simplify some otherwise difficult cases. As an illustration, a lad was brought to my office with a fracture of the radius. The accident occurred two days before I saw him and the arm was dressed by a doctor shortly after the accident. This surgeon churlishly refused to give any information as to the extent or nature of the injury. The arm was so swollen and painful that I could discover nothing as to the condition of the bone or the extent of the injury.

Presumably the fracture was reduced and the bones in

apposition, but the pain continued. I therefore placed him under the X-ray and then could see the lower extremity of the fractured bone overlapping the superior portion and distant more than one-half inch. Under the ray I could see just as distinctly as though no flesh was intervening and the manipulation of the bone was so easy that a child could have managed it. It was the A B C of surgery. The bones replaced, a pad was applied that kept them in position and the dressing applied, all with a clear view of what was being done. The pain ceased very speedily and the case proceeded to a good recovery without further trouble.

. In cases of foreign bodies, such as bullets or other substances imbedded in the body, the location can readily be determined and with the new tubes the different organs of the body may be seen and morbid pathological changes be determined. All this is well known, but as a bactericide the Roentgen ray has received less of credit than is its rightful due.

Discussion. The discussion upon this paper was chiefly technical, and was participated in by Drs. E. W. Boardman, Kahlke, Evans, Harry Pratt and Gilman. The two following papers were read by title and referred.

XXXVI. Observations on sulphur. By Dr. Chas. H. Evans.—This mineral induces in the animal body a sluggish circulation in the venous capillaries, commencing in slight degree and gradually increasing until a decided venous enlargement has resulted, when not only the capillaries but the entire venous system has become more or less involved. This state has been attributed to a slowly advancing disease in the ganglionic system of nerves, implicating the cerebro-spinal system at a later period. At any rate the progress of these conditions either primarily or simultaneously is essentially chronic in character, and sooner or later implicates all organs in the body, deranging their functions and changing the structures of tissues in great variety of detail.

So decided is this venous stasis that chronic congestion is found to be present to a greater or lesser extent when-

ever sulphur, or the diseases to which it is analagous have exerted their influence upon the cells of the body for a considerable length of time.

We must therefore look upon the sulphur disease, whether this is artificial or natural, as essentially of a low grade and of a chronic character. Such a condition of the structures of the body is termed constitutional; in other words, all the anatomical constituents of the body have become abnormal and no function is being performed in its proper manner. This constitutional condition may have been hereditary through several generations, or acquired by habits, occupation, deficient food and air and improperly treated or suppressed diseases. In any event, the entire human economy has become so impressed with the morbid influence in each and every part, that it modifies the character and progress of whatever acute disease is contracted afterward. Convalescence from these latter diseases is also hindered or rendered impossible from the fact that there is not a healthful state of the body to which it may return upon the subsidence of the acute disorder.

Sulphur having the property of inducing such a constitutional state, is therefore, one of the remedies capable of eradicating it when structural lesions have not gone too far, or exhaustion of function has not been too great. For this reason, it is a drug to be given when the general health has so far declined that complaints, numerous though not severe, have been present during a long period —in other words, when they have assumed a chronic character.

At the same time, it is not infrequently called for during the course of acute diseases, particularly the exanthemata, when the modified constitution of the patient has caused a deviation from their natural course or termination. At such times sulphur in initiating a similar influence upon the cells of the body restores these to their normal state and thus allows the course of the acute disease to proceed in a typical manner.

Such a constitutional state was for a long time recognized under the name of scrofula, although this term failed to describe the varied characters that were classed in a wholesale way under that name. Diathesis is another term employed to designate a constitutional impairment arising *de novo*, and causing morbid lesions in the course of its advance, although this title has a more restricted mean-

ing at the present time. Psora is the name that was unfortunately bestowed upon it by Hahnemann, for the treatment of which he recommended a list of remedies called anti-psorics, sulphur among the number. With the details of this theory there are great differences of opinion among the adherents of our school. The doctrine is not all to be accepted, nor is it all to be rejected. The fact that a complex, chronic, constitutional state may exist for years, or even during a lifetime, is freely conceded by all schools of medicine, but that such a condition always originates in the suppression of scabies is a belief not clinically true.

A certain degree of plausibility has attached to it from the fact that cutaneous diseases are not infrequently associated with this constitutional disorder, and that professional and domestic practice despairing of curing them by internal means, has ventured to suppress them by external applications. The complex disorder having been prevented from localizing itself upon a less important organ, the skin, conservative nature now continues the general effects throughout the body at large or permits a localization in more important internal organs. The same thing takes place also when a long standing discharge has been arrested by local means, or habitual bleeding from the hæmorrhoidal veins has been checked by astringents, escharotics, or mechanical measures.

In those cases of chronic or acute disease where little or no response has followed the use of an apparently well selected remedy, sulphur is recommended as an intercurrent to produce "reaction" as it is said, after which improvement goes on uninterruptedly. Strictly speaking there can be no such thing as reaction, for this term implies that action has been suspended, whereas it is perversion rather than suspension that has taken place. What really is accomplished in such cases is the restoration of cell life to its normal activity in the same way that takes place in acute disease.

It should always be remembered, however, that those drugs capable of imitating this constitutional state must be prescribed according to the individual indications of each, for their administration for pathological reasons alone will fail to effect a cure. While the pathogenesis of sulphur shows a vast array of symptoms, those characteristic of its influence must be present in order that its selection may be followed by a cure. Prominent among these is the char-

acter of the secretions and excretions of sulphur. These are so chemically altered that they are invariably of a burning acrid nature, and excoriate the skin of the orifices and adjacent surfaces over which they pass. Thus the eyelids are reddened and denuded of their cuticle and otorrhœa accomplishes the same effect in its locality. The secretions of the mouth and throat render the buccal cavity and the corners of the mouth red, inflamed and sometimes ulcerated, while the scrotal, labial and anal openings, as well as the gluteal, and femoral surfaces are stripped of their cuticle. In lesser degree, each or all of the orifices of the body are surrounded by a margin of unnatural redness. The lips are also seen to be unusually red and the nostrils present a reddened appearance. Mucous surfaces bleed easily, wherever situated.

General debility is present, gradually increasing until muscular tone has become so impaired that the person walks stoop-shouldered and with a listless gait. At the same time there is trembling, weakness of the muscles, and emaciation is quite marked and the flesh is noted to be soft and flabby. The sensibility of the cutaneous nerves is so altered that great sensitiveness is felt to the open air, the individual is easily chilled and there is shrinking from contact with cold water, so much so that children and adults dislike bathing. The circulation is irregular and flushes of heat pass over the body like a wave, ending in general moisture of the skin, and the hands and feet burn so greatly as to cause complaint. A sense of faintness is experienced from time to time, and this is especially apt to be the case in the forenoon, when it is temporarily relieved by eating a few morsels of food.

VOLUNTEER PAPERS. XXXVII. THE PATHOGENESIS OF APPENDICITIS. TRANSLATED BY DR. CORNELIA S. STETTLER.—In France, as elsewhere, the pathology and treatment of appendicitis have attracted the professional attention for seven or eight years past. The subject has recently been very thoroughly discussed before the Surgical Society and the Academy of Medicine of Paris. Believing, however, that his theory of its cause did not receive a merited attention, the celebrated surgeon, Dr. Paul Reclus, of the Hopital Laënnec, furnishes the following paper to the *Semaine Médicale* for June 23, 1897:

The theory which I have styled that of *stagnation,* or of *a fistula with a natural limit,* rests entirely upon the anatomy of the appendix, which is a tubular organ, blind at one of its extremities; one open diverticulum within another, the cæcum of the cæcum. Its canal extends along the iliac fossa, and the materials which the bowel may pass into it, as well as the mucus that its walls secrete, must overcome gravity in order to rise into the intestine. In this way the dried fæces, foreign bodies and glandular secretions become stagnant, and in their fixed state find an excellent culture bouillon for the development of all the intestinal flora, innumerable microbes that vegetate in the infra-gastric portion of the digestive tube, of which the most common are the colibacilli, the streptococci and the staphylococci.

The increased virulence of the pathogenic germs contained in an organic liquid that is stagnant is well-known. The role that they play in urinary pathology, especially in fermentations in the bladder, the ureters and the pelvis of the kidney is shown in attacks that are due to stricture and occlusion. Being in contact with this infective material, epithelial desquamation and ulceration of the appendix that arise from slight traumatism and local irritation show no tendency to cicatrize; and a transient inflammation that would be readily cured in other portions of the intestine, where the matters pass along and do not stagnate, may continue for a long time within the appendix. It will persist as suppuration does in the purulent foyer and in the course of fistulous tracts. And this is my reason for comparing the inflamed appendix to a fistula with a natural limit.

Having established these premises, I propose to divide appendicitis from a pathogenetic point of view into three groups: (1) those arising from *local causes;* (2) those by *propagation;* and (3) those due to *general causes.* Attacks that should be ascribed to local causes are the most frequent and represent about 60 per cent of the cases. For a long time they were supposed to include all cases of appendicitis, and the disease was ascribed to the lodgment of such things as various seeds, cherry stones, shot, hairs, bits of bone, hepatic calculi, etc. But modern research has shown that, in the great majority of cases, the foreign body within the appendix consists of fæcal matters that may have slipped into the tube in a soft state and then

become hardened, incrusted and increased in size by successive layers, by calcareous deposits, or become brown, like the pit of a prune, an olive or a date.

It is needless to explain that the presence of foreign bodies in the appendix may readily cause stagnation. The form and declivity of the tube, with the ready accumulation within its blind pouch; the irritation of its walls by the contained and infectious materials; the development of the microbes and their increased virulence is certain to take place in the stagnant liquid. And so, on the slightest exposure to traumatism, errors of diet, indigestion, or a chill which paralyses the action of the phagocytes, the pathogenic germs invade the wall of the organ and the fully developed attack follows. * * *

We do not reject the *vas clos* theory; on the contrary, we support it, for whenever there is an imprisoned liquid that is separated from the rest of the appendix and from the cæcum there must be stagnation. But this is only one variety and does not include them all. This obstructive class should also include cases in which there is no foreign body present, such as those arising from torsion of the tube, a tuberculous cicatrix, nodular deposits after typhlitic ulceration, from peritoneal adhesions, or from hernial strangulation, of which Romme has published a case.

The obstructive form should not be confounded with the two other kinds of appendicitis that remain to be considered. Most other cases show the appendix largely open, both into the cæcum and throughout its extent, and free from all foreign bodies. When appendicitis is propagated it is due to an extension of the inflammation which fills it up. And while the primary enteritis may have been cured, if the inflammation settles in the tube it will sooner or later provoke serious mischief. * * *

Thanks to accumulated facts we now know that inflammation of the appendix is often incident to enteritis, and that all varieties of the latter may be concerned in its production. * * * Entero-colitis, especially of the mucomembranous variety, is not free from this risk. MM. Dieulafoy, Hutinel and Potain have eloquently opposed this idea, and have cited a lot of cases of serious entero-colitis that have run on for years without being accompanied by appendicitis; but that only proves what nobody disputes, that while entero-colitis sometimes causes appendicitis it does not always do so. These negative cases

prove nothing against our positive ones, of which we cited twelve that were unpublished and personal. To these nine others may now be added. This makes twenty-one cases that have been collected within two months from among our immediate professional acquaintances.

We have elsewhere published the case of a young woman, who, in order to rid herself of thread-worms, took an enema containing 200 grammes of water and 0-gr. 50 centigrammes of corrosive sublimate. Being frightened at what she had done, that was followed by a large injection of warm water. She was almost immediately attacked with entero colitis, tenesmus, bloody, glairy stools full of epithelial débris. These symptoms lasted eight or ten days, but when they had ceased for two or three days, she was suddenly seized with a violent pain in the right iliac fossa, nausea, vomiting, tympanitis, rigidity of the rectus muscles and an induration in that region, in short with all the signs of appendicitis.

Morever, since our discussion at the Academy of Medicine, this subject has grown in interest and the recent experiments of M. Maurice Beaussenat have unqualifiedly proved the possibility of the propagation of enteritis to the appendix. In the case of six rabbits he has induced an attack of entero-colitis by forcing them to swallow chopped meat that was in a state of putrefaction, and with all of them the ulceration had extended into the vermiform appendix. He therefore concludes that "the most ordinary mode of infection of the appendix is the descending form that is of intestinal origin."

Evidently this kind of appendicitis is explained on the theory of stagnation and of a natural fistula. The inflammation passes from the intestine to the appendix, localizes itself, and thanks to the tubal structure of the organ, and its declivity, takes on the serious character already described. * * * * *

Still less is known of the third class of cases, or those which arise from general causes. It is understood that certain infectious diseases may be accompanied by inflammation of the vermiform process. Talaguier relates the history of a young girl who, in the course of an attack characterized by fever and swelling of the joints, was suddenly seized with nausea and vomiting, a fixed pain at McBurney's point and swelling in the right iliac fossa. Merklen has published three cases of appendicitis which

he declares were consecutive upon simple tonsilitis. Finally, Goluboff has seen several cases following the grippe. Only a few months have passed since these cases began to be observed, but the facts are multiplying rapidly; indeed, they are becoming so numerous that we are noting their possible relation to the eruptive fevers. Talaguier has known appendicitis to appear at the sixth day of measles, during an attack of varicella, after mumps, scarlatina and typhoid fever. Mlle. Gordon reports, in her thesis, that it occurred eight times after measles, twice with measles and whooping cough, twice with measles and scarlatina, twice with measles and acute articular rheumatism, and also with diphtheria, influenza and typhoid fever. These reports should, however, be qualified.

In all cases of appendicitis the role of stagnation should not be forgotten whenever it is consecutive upon a general infection. At the same time that such infection attacks other organs it probably seizes upon the lymphoid tissue of the appendicular mucous membrane. The follicles become inflamed, as they do elsewhere; but while elsewhere the fluxion disappears quickly, and with it the risk of trouble, the lesions of this particular mucous membrane persist, as they would in a fistula, and so the crisis of an attack of appendicitis may follow. Such an inflammation, of no special consequence elsewhere, may become very serious in that locality, and may readily follow indigestion or a chill. The lymphoid tissue of the appendix, in contact with the intestinal microbes, is easily inflamed by exposure to cold that would induce a primary tonsilitis, after which the tubal stagnation would do the rest.

Beside these three classes of appendicitis there is another, the relapsing form. It is more interesting clinically than etiologically; for it may be related to either of the other classes, and may be due to local causes, to secondary inflammation, or to some general cause. But the theory of stagnation applies to it perfectly; and we can understand how, in cases that are apparently cured after a crisis, there is a persistent thickening of the walls of the tube, while its mucous membrane is left in such a condition as to invite a fresh attack. Once inflamed, ulcerated or infected, this cæcum of the cæcum has not any more inclination to heal than an ordinary fistula, of which it is the type.

Our thesis therefore is that appendicitis is not a disease that is one and indivisible. On the contrary, it is provoked by various causes, some local, others general; it is the sequel of other affections that are usually benign. In other tissues and bodily organs the inflammation propagated and the congestions caused by a general infection are not necessarily serious; but the structure of the appendix, its canalicular form, and its being a diverticulum, make it the counterpart of a fistula in which the microbes may stagnate and become virulent. They may invade its walls, causing ulceration and perforation, and as the vermiform process is plunged into the peritoneal cavity, we need not insist upon the possibility of very serious danger therefrom.

Clinical chips.—The glandular fever (Pfeiffer, 1889), is characterized by cervical adenitis with extensive swelling of the submaxillary and the sublingual glands, as well as of the lymph glands below the mastoid process and the post-auricular glands; a high temperature, 101-105°, anorexia, and an almost complete suppression of the urine. ——In uræmia when the chlorides have fallen to one-tenth their healthy ratio a fatal issue is very near.—(Méhu.)—— By the use of the Roentgen ray the course of a Murphy button has been traced through the intestines by Kümmel. ——The application of the salicylate of methyl followed by borated vaseline will relieve the suffering and very much lessen the duration of herpes zoster.——Gaillard insists that the effusion of pleurisy is auto-prophylactic, or providential.——The toxicity of the perspiration is increased by muscular exercise and as an effect of chilling the surface of the body, but is lessened when a free diaphoresis is artificially induced.——The ball-valve gall-stone lodged in the common duct gives rise to one form of bilious colic. ——Poisoning with picric acid locally or internally may occasion carboluria, or bloody urine as from carbolic acid.

Editorial.

THE MEETING OF THE INSTITUTE.—The Fifty-third Anniversary of the American Institute of Homœopathy, held in Buffalo, June 23-30, was in several respects a remarkable one. Apart from the peculiar fitness of the location, the civilities and courtesies extended by the local profession, the charming weather with its tonic atmosphere, and the kindly, friendly feeling of the members, there was much to enjoy and to be thankful for. Some of the veterans whose experience verifies the saying that "much labor makes age come too sadly and too soon," were absent, and others had passed away since the last gathering; but so far as possible their places were filled by men and women who had been in training, and who in the near future must take the entire command and control of the ship.

The tone and the practical character of the reports were generally better than ever before. The papers read were all the more acceptable because they were short, sharp, crisp and appetizing, with comparatively little of the text-book in them. Indeed, the disposition to take the advice given the parson by the judge, that his sermon should not exceed "twenty minutes, with a leaning to the side of mercy," was very much in evidence. The exception proved the rule, and the next volume of the Transactions will show who it was that sinned in this particular.

Evidently the essayist who believes in our clinical limitations has at last found his audience; for neither in the papers that were read nor in the discussion upon them was there anything of the old warfare of words about the issue between the general practitioner and the surgeon, with his scalpel and its modern accessories. Both parties conceded that whatever curative resources were called for should be mixed with brains and applied to suit the special requirements of the case in hand.

This broad spirit, which gives medical and surgical methods their full share of credit, but does not attempt to substitute internal remedies for operative measures, or

vice versa, in every case; and which would not force us to accept the theory that either is all-sufficient, is the condition and the evidence of our substantial growth and prosperity. Equal rights for the different departments was the unwritten motto of the convention; and there is no reason why so many good peas should not lie in one pod.

THE ABUSE OF MEDICAL CHARITY.—A few years ago it was almost impossible to persuade a native born American to appear as a patient in the clinic; and the general idea of that class of people was that a hospital was but another name for the poorhouse. Whether from force of habit or from necessity, only the poor foreigners who had for generations been trained to apply for gratuitous medical and surgical relief in public charities continued to do so in this country.

But now, with a natural propensity for going to extremes, it is quite as difficult to keep our own people away from the dispensaries and out of our free hospital beds. The consequence is that, while our clinics are full to overflowing, medical charity is being greatly abused by the better class of people, and the profession is deprived of its just rights. In the larger cities especially this has become a very serious matter; and our journals naturally bewail the tendency to impose upon the gifts of those who found and support those charities, and also to rob the doctor of his well-earned fees. The following extract, taken from the *Homœopathic Envoy*, is to the point:

Hospitals are necessary, but their abuse is not necessary. There is no more reason why a man should be given medical treatment free when he is able to pay for it than there is that he should be fed and clothed gratis. If a "soup house" found a well-to-do citizen falling in line with the hungry poor in order to get a dinner for nothing, he would no doubt be sharply informed that the house was not established to feed men like him. And there is no reason why the same class of spongers at hospitals should not be similarly reminded that they have no business there. Let those who are able to pay for medic treatment pay for it or go without it.

Hospital Notes.

THE CLINIC ON GYNÆCOLOGICAL SURGERY.

SERVICE OF PROF. LUDLAM.*

Reported by Cornelia S. Stettler, M. D.

Inter-menstrual sepsis from cervical atræsia.—Wednesday, June 23. *Case 27,077.* Mrs.——, æt. twenty-three, married a year and a half; had a child five months ago. The menses were always normal prior to conception, but have not been since her delivery. Because of puerperal fever and inflammation she did not nurse the child. Two weeks before the menses are due, and they amount to nothing, she has chills and night sweats that occur on alternate nights and last until morning. The scanty flow is somewhat painful, and the abdomen is slightly tympanitic. On local examination the small sound was passed with difficulty and the exercise of considerable tact.

The chief subjective symptoms in this case might lead you to refer them to malaria, but while the chill and the night sweats are periodical, they are really due to quite a different cause. An ordinary ague would not recur for months just half-way between the menstrual periods. The menstrual cycle is the time element in such a case as this, and these cases are more common than you may have supposed.

Here is a history of normal menstruation prior to pregnancy, and of scanty and painful menstruation after labor. What could be more natural than to suppose that her puerperal experience was responsible for this change? In the absence of any signs of disease of the appendages we look to the uterus and what do we find? There is a partial stenosis, or closure, of the cervical canal that probably resulted from puerperal inflammation. Hence the monthly struggle and the stillicidium, or drop-by-drop character of the flow.

*Continued from page 180

The discharge is not free, and the menstrual act is incomplete. There is a retention and consequent mischief. But the symptoms do not occur directly the flow is dammed up, as they would if the non-escape of the blood alone was responsible for them. They are not congestive, as they might be under other conditions, but septic and referable to the decomposition of portions of the retained menstrual decidua. That membrane is not firmly organized, else there would be great pain with its extrusion, and a consequent hæmorrhage, as in membranous dysmenorrhœa.

The old idea that the menstrual blood was excrementitious, and therefore of necessity poisonous if it was retained, is happily exploded. We know that it becomes harmful only when, with other secretions and exfoliated products, it undergoes a putrefactive change and is afterward taken into the circulation. And this is the explanation of the case before you. The symptoms are post-menstrual, not indeed in the ordinary sense of that term, but because they follow each menstrual period and depend upon it as a cause. And they follow that period at a certain distance of time, with a pretty distinct regularity, because it takes just about so long to develop these peculiar sequelæ.

There is an obstruction to the flow which cannot be overcome by the natural effort alone, neither by medicines; a scant discharge, considerable pain, tympanitis, and general feeling of illness, and the period practically goes by default. In from six to ten days she has chills and perspiration, that recur two or three times, and then the affair passes until the next cycle has come and gone. There is no thermometric record of the case, but we know that each time she has received what the French style "a slight dose of sepsis," to which the febrile paroxysm brings a critical relief. Having found the cervical lesion, we know the source of the mischief, and the case becomes a surgical one.

Placing the patient upon her left side, in the Sims' po-

sition, we first retract the perineum, expose the cervix uteri and then draw it down with a tenaculum. This straightens out the uterus and makes it more accessible. The tenaculum, which is not so savage as a volsellum, is given to an assistant, who holds it forward toward the pubes and out of the way. The sound is passed very gently, and the degree of the stenosis as well as the direction of the canal is thus ascertained. By leaving it in position for a few moments, a small Knott's dilator can be more readily applied. This curved dilator is better than a straight one. Observe that it has now been passed as far as it is meant to go, and that the dilatation is practiced very carefully and slowly. There is no need or excuse for haste and roughness, indeed they might be very harmful. Tact and not force is the right thing, else we might traumatize the parts, and in breaking up the old inflammatory products put the patient in a worse condition than she was before.

This little operation, which is a delicate one, will need to be repeated until it is possible to introduce a uterine stem that will overcome the atræsia, and keep the canal patulous, so that the menstrual flow can come promptly and freely and the septic conditions be averted. Meanwhile she will take china arsenicum 3 four times a day.

Wednesday, June 30. The patient reported that she felt much better. The uterus was again drawn down and dilatation practiced before the class. Knott's dilator was used as before, and then Goodell's. In speaking of the employment of sponge tents in such cases, Prof. L. said: The placing of such a tent, even if it had been carbolized, within the cervix and leaving it there for hours, or days, was a nasty expedient that would be pretty certain to induce sepsis even if it were not already present. Only a few years ago many women died from their use, but now they are as antiquated as the stem-pessary, or as the expedient of slitting the cervix in a case of stenosis.

Wednesday, July 14. She missed the chills and the perspiration in the middle of the month, and now has had

a normal and continuous menstruation from Thursday until the following Monday, with entire relief of all the symptoms. We will pass a hard rubber stem and leave it in situ. This will keep the uterus straight in its own axis, and drain the organ much more thoroughly and safely than could be done by the tube, the gauze, or in any other way. With ordinary care for cleanliness the stem may be worn for an indefinite period.

CLINICAL CHIPS.—For pruritus of the vulva Ruge advises careful washing of the vulva and the vagina with soap and water, and thorough disinfection with the sublimate solution, after which an ointment of carbolated vaselin may be applied.——Paralysis of the musculo-cutaneous nerve of the leg may follow work in a sitting posture.——In fourteen out of seventeen cases of strangulated hernia a hypodermic of morphine near the rupture, and a warm bath of from fifteen to thirty minutes' duration made the reduction possible; in one case, however, the injection had to be repeated three times during the day.——The silver wire suture gives the best results in fracture of the patella.——Edebohl's method of infusing the saline solution beneath the mammary gland is sometimes the best way of applying it in case of severe surgical shock or hæmorrhage.——Intra-ocular hæmorrhage is not very infrequent during and after extraction for cataract.——Olive oil may be mixed with warm milk and thrown high into the bowel in gall-stone colic.——The Medico-legal Society of Paris has decided that a chemical examination of the blood will not enable us to say if a woman has recently been delivered.——"The treatment (of cancer) by cancer pastes, especially the removal of large masses by this means, is alike unscientific, barbarous and damnable. It bespeaks the meeting of two cowards—the patient who is afraid of the knife, and the pseudo surgeon who is afraid to use it."—*Roswell Park.*

Clinical Reviews.

All books for review, magazines, exchanges, correspondence and articles designed for publication in this journal should henceforth be sent to Dr. R. Ludlam, Editor, 1823 Michigan Avenue, Chicago.

THE PHARMACOPŒIA OF THE AMERICAN INSTITUTE OF HOMŒOPATHY. Published by the Committee on Pharmacopœia. Otis Clapp & Co., Boston Mass., 8 vo. 1897.

Having had a considerable share in the compilation of a homœopathic pharmacopœia, quite a number of years ago, the reviewer is fully aware of the extended time and labor necessary in the construction of such a work, and although the publication of the present volume terminates a long period since its inception its progress has been measured by the exactness required. The need of a standard for the preparation of medicines for homœopathic use has been expressed during many years, and though existing works on this subject have served an excellent purpose, they were not authorities in the sense that the United States, British, French and German pharmacopœias are to the dominant school.

It is right and proper that the Hahnemannian preparations should conform to the rule that he established, for the provings were made of them and any wide divergence from them would result in modified solutions. But, numerous drugs have come into existence since his time, the preparations of which vary as often as there are pharmacies. It is for uniformity in these differing products, as well as of many other things, that this pharmacopœia has been compiled, and the authoritative stamp of the national body, the American Institute, has been placed upon it. This is not, however, the full measure of its intentions, for nomenclature receives a full share of attention; so that confusion as to drugs shall not arise in the future, as has already been the case with some of the arsenic and sodium salts; or valuable provings vitiated, such as brucia antidysenterica, because sufficient accuracy was not observed as to their origin. As an instance of the greater exactness urged upon the pharmacist, the substitution of the degree of comminution in trituration instead of the time

limit is an important innovation. The mere time consumed in trituration is not considered as the standard of excellence unless this has accomplished its object—a definite attenuation of the drug substance. In order that this result may be positively obtained and uniformity secured in the different pharmacies the microscope is called upon to decide the question; thus the first trituration must present the drug particles reduced to 1-100 of an inch or less—the second trituration to 1-2,000 inch, and the third trituration to 1-4,000 inch or less.

While the pharmaceutical side has freely been accorded its demands, the professional one has not been neglected. Descriptions of plants, chemicals, minerals, etc., are terse and free from technicalities that have no interest for the physician, and yet are sufficiently plain for him to understand the nature of the tools with which he is working. Pronunciation also has sufficient space assigned to it.

More than 700 drugs are described in the pages of this work, and the Committee, the profession, and the publisher are deserving of hearty congratulations on the production and possession of such a systematized medical arsenal.

C. H. E.

THE HOMŒOPATHIC THERAPEUTICS OF DIARRHŒA, DYSENTERY-CHOLERA, CHOLERA MORBUS, CHOLERA INFANTUM AND OTHER LOOSE EVACUATIONS OF THE BOWELS. By JAMES B. BELL, M. D. Fourth edition, Philadelphia: Bœricke and Tafel, 1897, pp. 316.

If there is one class of affections which more than another yield to and illustrate the superior efficacy of homœopathic remedies it is the class of bowel disorders to which this excellent book is devoted. They are not limited as to the age, race, or the general condition of the patient. Nor are they self-limited as to their type and their termination. They are, perhaps, more free from nervous and mental complications than any other diseases. Whether they occur in children or adults, in summer or in winter, in an endemic or an epidemic form, there is no doubt that they respond to properly chosen remedies in a very remarkable way. Homœopathy has made more reputation from treating the various forms of cholera, foreign and domestic, cramp diarrhœa, chronic diarrhœa and dysentery than in any other single class of cases; and the way to keep that reputation and to extend it is to publish and to use such books as this.

ORGAN DISEASES OF WOMEN, NOTABLY ENLARGEMENTS AND DISPLACEMENTS OF THE UTERUS, AND STERILITY, CONSIDERED AS CURABLE BY MEDICINES. By J. COMPTON, BURNETT, M. D., etc. Boericke & Tafel, 1897.

There is so great a need for a good book on the medical diseases of women that many doubtless will buy this one for its title. Its chief characteristics are a snarling contention with the gynæcologists and a commercial bid for business that brings the dignity of our art to a very low level. It is written in bad taste and worse English, but these faults might be condoned if the author had been more parsimonious of himself. There is nothing clinical in its pages, but a rambling, quackish recital of cases in the style of the patent medicine almanac. These are garnished with all sorts of quotations from Scripture, Stevenson and the rest; with scrappy details of all sorts of morbid conditions, from a "feelable hardened state of the inguinal glands," to ossification of one-half of the womb; from "vaccinosis" to tuberculosis of the the testicle, from "a defrauded womb" to a bad leg and ague cake, with quotations from professional letters, office colloquies, etc., etc. As a sample of the text we quote from page 79: "Where the organ-ailing is primary to the organ, use organic remedies in little material doses frequently repeated; where the organ-ailing is of a piece pathologically with that of the organism, use the homœopathic similimum in high potency infrequently repeated." At page 84 is another sentence which contrasts very strangely with the kind of literature that our English friends are wont to issue: "I hold very strong opinions on the question of intro-vaginal injections; they are altogether damnable and pernicious, shallow in conception, wrong in theory, and harmful in practice."

Evidently the first condition for writing a good book on this very useful branch of medicine is that one shall be thoroughly familiar with his subject, capable and experienced both as a gynæcologist and a general practitioner, and free from the trammels of quackery. The ways of Providence are past finding out, and it is possible that the compensation for the issue of this unfortunate book will take the form of a high-toned, responsible and creditable work, so that "a bad beginning may make a good ending."

THE MENOPAUSE: a consideration of the phenomena which occur to women at the close of the child-bearing period, with incidental allusions to their relationship to menstruation. Also a particular consideration of the premature (especially the artificial) menopause. By ANDREW F. CURRIER, A. B., M. D. New York City: D. Appleton & Co., 1897. pp. 309.

It is many years since Tilt's Change of Life, and Börner's Menopause, translated from the German, appeared in the English language, and meanwhile the relations of this peculiar crisis to the health of women are better understood. The object of this book is to correct the old errors and to reach a careful clinical knowledge of the subject. The author objects to the old notion that the "change" will bring a cure for hæmorrhage, tumors and ill health generally; and insists that there is no intimate relationship between malignant disease, especially cancer of the womb and the breast, and the menopause. His aim is to have these affections treated more intelligently and in accordance with the demands of progressive medicine.

Of the surgical remedies he says: "There are many cases which can and should be relieved by them, and it is hardly just, scientific, or humane to load them down with drugs month after month, in the most empirical fashon, if the condition is one which can be effectually and permanently relieved by the timely resort to surgery."

FOREIGN CORRESPONDENCE.

BERLIN, June 18, '97.

Mr. Editor: According to promise, I send you some notes of medical studies connected with the eye, ear, nose and throat. I have been here but a few days, but am very much pleased with the work. I am free to say that in all my travels this time and on former trips, I never saw such an opportunity for study or observation in nose, throat and ear work. The eye work is good, but of that later. From the number of patients one sees in these clinics, he would be led to believe that all the sick of Germany were afflicted with diseases affecting the above mentioned organs; but I suppose it safe to say that a visit to the Frauenklinic, or the general medical, or the surgical, would reveal the same condition of things. Patients are here in such abundance that in each clinic many unusual and interesting cases present themselves. I am following ear work closely and have seen many mastoid operations and many more already operated upon.

In the Royal Hospital, at the clinic of Prof. Lucae the rule seems to be to open the mastoid in every case of chronic middle ear suppuration which does not yield promptly to ordinary treatment. The opening is free and then with iodoform packing and daily dressing we often see prompt and good results.

A former first assistant to Prof. Lucae, Dr. Johnson by name, has started a private clinic and judging from the patients I see, I should say it was a mastoid clinic, and the patients come daily by the dozen. I am invited to see special operations the coming few days and shall follow them closely. I also have an appointment with Prof. Trautman at the Charité to see similar work.

I have had occasion in some of my writings and discussions to refer to the work of Prof. H. Krause, who has written more than any other one, perhaps, concerning laryngeal tuberculosis. I have the pleasure now of seeing him daily, and he has been kind enough to show me his cases, methods, instruments and results. So far he has published a record of 600 cases treated by curettement and lactic acid, but is now experimenting with a new drug, the name of which he will not reveal till he has finished his experiments. His rule for curettement is to take away *all* infiltrated tissue, whether it be the epiglottis, arytenoids or even the cords. He shows cases which are in a state of statu quo at least, and which are evidently alive, thanks to his skill.

The name of Fränkel stands high and in his laryngological clinic I have followed especially diseases of the antrum of Highmore. A diagnosis is usually made, but many an exploratory puncture with a trochar is made through the nasal wall to establish a diagnosis, which in itself may be sufficient for a cure or lead to a radical operation and cure. The radical operation is made by drilling into the antrum through the

alveolus by means of an electric trephine. Then thorough washing, disinfection, or packing if necessary, will lead to a cure.

June 21. Last evening up to 10:30 P. M., I saw mastoid operations. In one case, of four weeks' duration only, the bone was so diseased that the whole mastoid process was removed, leaving the sinus and dura mater visible. To one interested each case has special points of interest.

As to eye work, I have followed Profs. Hirshberg, Schoeler and Schweiger, each one interesting and glad to show his methods. An interesting lecture on asepsis by the first named, was worth coming miles to hear There are many things to learn, some to emulate and many to avoid. Prof. Koch is in Russia and therefore I cannot hear him. But as surgical technique of every description is of value I followed a series of operations by the renowned von Bergman, among them the neatest setting of a dislocated shoulder one could now see.

One of the great men known all over the world, Prof. Virchow, I have also seen and heard. It happened to be a lecture to students upon the subject of intestinal ulceration in typhoid; and for exquisite detail in minute and precise pathology it was masterful. Added to this were the pathological specimens, nearly a hundred in number, preserved in long jars so they could be carefully examined, and showing every variety and stage of ulceration from inception to healing, perforations, etc. The old gentleman speaks without notes and at times with his hands in his pockets, and his greatness seems to come from within.

So much for medical Berlin. But as for the people, I find there are many thousand left, well and happy to spend their leisure hours in the concert gardens, and they seem quite as gay as in dear old Paris.

Very truly yours,

C. GURNEE FELLOWS.

Miscellaneous Items.

Attention is directed to the Inaugural address of Prof. Crawford, President of the Clinical Society, on page 354. ——Referring to the Editorial on the College Nuisance in our last issue, a correspondent suggests that the pest comes from the *bacillus collegiosus*.——At a banquet held in the Hotel Cecil, May 26, in aid of the London Homœopathic Hospital, the snug sum of $36,500 was raised. ——Prof. and Mrs. Shears were entertained in Rochester, after the Institute meeting, by Dr. J. M. Lee. They report that the Homœopathic Hospital of that city is one of the best in the country, that Dr. Lee's reputation as a surgeon is thoroughly sustained by the work done and the results obtained, and that as a host he is as genial and generous as he is active and enthusiastic in his profession.——The eldest daughter of Dr. Léon Simon (whom our friends saw and heard at the Congress in London last year) was one of the victims of the horrible fire at the bazaar in Paris.—— The Catalogue and Annual Announcement of the "Old Hahnemann" for 1897-98 is out and can be had by addressing Prof. J. P. Cobb, Registrar, 2811 Cottage Grove Ave., Chicago.——The Section on Diseases of the Eye and Ear, Dr. C. J. Swan, Chairman, will report at the next meeting of the Clinical Society, July 31.——Dr. R. Ludlam, Jr., and wife are having a month's vacation in northern New York.——The College is being put in order, and additional sub-clinic rooms have been added.——The XXXVIII. Annual Course of Instruction will open September 14.——Prof. Cobb's vacation extends from July 22 to August 12.